User perceptions, social standards and intended behaviour towards using online music platforms in South Africa

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ABSTRACT

Globally, the music industry has experienced a significant shift in consumption behaviour, driven largely by the rapid growth of digital streaming platforms. This trend has also emerged in South Africa, where increased mobile connectivity and evolving consumer preferences have reshaped the ways in which music is accessed and consumed. Despite this positive trajectory, several challenges remain, including issues of digital readiness, data affordability, changing consumption patterns, and user perceptions of online platforms.

The present study investigated technology readiness and online consumer intention within the South African music sector by integrating the Technology Acceptance Model (TAM) and the Theory of Planned Behaviour (TPB). While the TAM and TPB are well-established theories in the marketing and consumer behaviour fields, this study provides an emerging market contextual grounding of the application of TAM & TPB integration, specifically from the South African metropolitan point of view. A total of 350 valid responses were collected through a quantitative survey of suitable respondents aged 18-65 and residing in the Johannesburg, South Africa.

Data analysis followed a correlation-based structural equation modelling (CB-SEM), where results showed that perceived ease of use (PEU), perceived usefulness (PU), attitude and perceived behaviour control (PBC) significantly influence behavioural intention. Despite showing weaker effect, social norms also have positive and significant influence on the intended to use the music streaming platforms.

This study findings have contextual and managerial implications for the digital music streaming sector, including technology providers, artists, record labels and related stakeholders as they navigate the evolving digital music landscape in South Africa.

Keywords: TAM, TPB, Mediation, Online Music Streaming, South Africa

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1. INTRODUCTION

Globally, the music industry has seen a significant shift in consumption behaviour, with paid streaming accounting for a majority and pushing the revenue for recorded music revenue to about US$29.6 in 2024 (International Federation of Phonographic Industry, 2025). These changes are driven largely by the rapid expansion of audio and visual streaming platforms (MIDiA Research, 2024).

In Africa, there has been a similar trend in the past decade, with the sub-Saharan region reporting a consistent year-on-year revenue growth from digital platforms (PWC, 2025; IFPI, 2024). Increasing mobile connectivity accelerates the adoption and consumption rates, and digital music revenue.

South Africa, the largest market for digital music streaming in sub-saharan Africa, generated an estimated R1.51 billion in total music revenue in 2024 (IFPI, 2025). Despite the positive outlook, notable challenges remain, such as ever-changing consumption patterns, uneven access, data affordability and perceptions about digital platforms (Reuters, 2025; MIDiA, 2024).

With this contextual background, this study seeks to integrate the Technology Adoption Model (TAM) with the Theory of Planned Behaviour (TPB) in a quest to address questions about the drivers of technology adoption and usage, within the online music streaming sector in South Africa. Although previous scholars have researched this phenomenon, the current study provides a fresh perspective from an emerging economy perspective (South Africa), considering the cognitive evaluation of technology and behavioural control within the voluntary digital consumption point of view. For instance, Nhlabathi (2023) used the Technology Readiness Index (TRI) dimensions and attitude study of the phenomenon, from a Covid-19 perspective. Furthermore, research on the integration of TAM and TPB in streaming music platform adoption within the South African context is limited as existing literature either used different theories or context (e.g. Portugal & UTAUT2; Germany & TAM-TPB; Korea & TAM-TPB) (Barata & Coelho, 2021; Dorr, Wagner, Benlian & Hess, 2013).

1.1 RESEARCH QUESTIONS

- What is the influence of the TAM and TPB dimensions on digital music streaming adoption and usage intention in South Africa?
- What is the influence of user perceptions on their attitude towards adopting and using music streaming platforms in South Africa?
- What is the influence of user attitude on the intention to adopt and use online music platforms among music fans in South Africa?
- What are the mediation roles of attitude (ATT) and perceived usefulness (PU) on the intention to adopt and use music streaming technology in South Africa?

2. LITERATURE REVIEW

2.1 TECHNOLOGY ACCEPTANCE MODEL (TAM)

The TAM was developed by Davis (1986) as a tool to be used by practitioners in predicting, explaining and improving user acceptance of new technologies and information systems during their early development stages (Davis & Granic,

2024). The core predictors of the TAM are perceived ease of use (PEU) and perceived usefulness (PU). User beliefs and perceptions of technology adoption and usage were also incorporated, leading to the inclusion of user attitudes as a construct, which in turn predicts intended behaviour (i.e. adoption and usage) (Chauhan, Ligaraba, & Asher, 2025; Davis & Granic, 2024). A third predictor (attitude) completes the model, also leading to intended behaviour. Table 1 shows literature on the application of TAM in various sectors.

TABLE 1: STUDIES ON THE TAM

Title	Country	Authors
Perceived usefulness, perceived ease of use, and user acceptance of information technology	USA	Davis (1989)
An assessment of influential factors developing the intention to use social media sites: A technology acceptance model-based approach	Pakistan	Bashir, Zhongfu, Sadiq, Niaz, Anjum & Mahmood (2022)
Adopting the technology acceptance model: A Namibian perspective	Namibia	Bothma & Mostert (2023)
Determinants of intention to use the mobile banking apps: An extension of the classic TAM model	Spain	Munoz-Leiva, CLiment-Climent, Liebana-Cabanillas (2017)

2.1.1 Perceived Ease of Use (PEU)

PEU, the secondary determinant of user acceptance, refers to the user's beliefs about the level of ease or difficulty in using the technology or system (Davis & Granic, 2024). PEU influences user attitudes both directly and indirectly through PU (Davis & Granic, 2024). Thus, a user can tolerate a slightly more difficult system or technology provided it provides useful (PU) benefits, such as providing access to a vast variety of music online (Munoz-Leiva *et al.*, 2017). Existing literature has found PEU to have a positive and significant influence on both PU (directly) and ATT (indirectly) in various sectors such as mobile banking (Munoz-Leiva *et al.*, 2017), online banking (Bothma & Mostert, 2023) and social media platforms (Bashir *et al.*, 2022). Thus, it can be hypothesized that:

H1: Perceived ease of use (PEU) has a positive and significant influence on perceived usefulness (PU).

H2: Perceived ease of use (PEU) has a positive and significant influence on Attitude (ATT).

2.1.2 Perceived Usefulness (PU)

PU, the primary determinant of user acceptance, refers to the system or technology's capability to achieve the user's intended goals (Davis & Granic, 2024). Thus, PU is defined as the system's (i.e. technology's) ability to improve the user's performance on a particular job or activity. In this case, the streaming platform's ability to help listeners to stream music better. Existing literature argues that PU influences user attitude towards a system or technology (directly) and user-intended behaviour (indirectly) in various sectors, including mobile banking (Munoz-Leiva *et al.*, 2017), online banking (Bothma & Mostert, 2023) and social media platforms (Bashir *et al.*, 2022). User attitude (ATT) refers to a user's favourable or unfavourable appraisal of the intended behaviour (Mkhize, 2021). Intend ended behaviour (BI) refers to one's motivation and willingness to perform a behaviour (Ajzen, 1991). Thus, it can be hypothesized that:

H3: Perceived usefulness (PU) has a positive and significant influence on attitude (ATT).

H4: Perceived usefulness (PU) has a positive and significant influence on behavioural intention (BI).

2.2 THEORY OF PLANNED BEHAVIOUR (TPB)

The TPB, developed by Ajzen (1991), has been used extensively to predict intended behaviour in various sectors. These include green buildings, microgeneration technologies, and music streaming (Wei *et al.*, 2025; Mkhize, 2021;

Dörr *et al.*, 2013). The theory comprises three predictors: subjective norms, user attitude towards behaviour and perceived behavioural control and outcome (intended behaviour) (Ajzen, 1991). Table 2 shows literature on the application of TPB in various sectors.

TABLE 2: STUDIES ON THE THEORY OF PLANNED BEHAVIOUR (TPB)

Title	Country	Authors
Music as a Service as an Alternative to Music Piracy? An Empirical Investigation of the Intention to Use Music Streaming Services	Germany	Dörr, Wagner, Benlian & Hess (2013)
Digital music services: consumer intention and adoption.	USA	Kwong & Park (2008).
Applying the technology acceptance model – Theory of planned behaviour (TAM-TPB) model to study the acceptance of building information modelling (BIM) in green building in China	China	Wei, Prasetyo, Belmonte, Cahigas, Nadlifatin & Gumasing (2025)
Influencing the adoption of microgeneration technologies using the theory of planned behaviour.	South Africa	Mkhize (2021)

2.2.1 Subjective Norms (SNs)

The social norms (SNs) refer to the social pressures influencing an individual's decision whether to perform or not to, a particular activity (e.g. adopting the music streaming services) (Mkhize, 2021; Ajzen, 1991). Put differently, SNs entail one's belief on whether close relationships (e.g. friends, family, colleagues) will support or reject the intended behaviour (Mkhize, 2021; Ham *et al.*, 2015). Existing literature argues that social norms influence behavioural intention (BI) in various sectors, including green buildings, microgeneration technologies, and music streaming (Wei *et al.*, 2025; Mkhize, 2021; Dörr *et al.*, 2013). Thus, it can be hypothesized that:

H5: Subjective norms (SN) have a positive and significant influence on behavioural intention (BI).

2.2.2 Perceived Behavioural Control (PBC)

PBC is defined as one's belief that they have control over their intended behaviour (Ajzen, 1991). Part of the control entails one's belief regarding their level of knowledge of the new system or technology, normally called the control beliefs (Mkhize, 2021; Hall *et al.*, 2019). The knowledge includes the cost of technology, literacy levels of the consumer. Higher levels of knowledge may drive the intention to adopt, while the opposite is true for individuals who believe they have limited knowledge (Palm & Eriksson, 2018). Existing literature argues that PBC influences BI in various sectors, including green buildings, microgeneration technologies, and music streaming (Wei *et al.*, 2025; Mkhize, 2021; Dörr *et al.*, 2013). Thus, it can be hypothesized that:

H6: Perceived behavioural control (PBC) has a positive and significant influence on behavioural intention (BI).

2.3 ATTITUDE (ATT)

User attitude (ATT), as defined in 2.1.2, is influenced by both PEU and PU in TAM and SN and PBC in TPB. This construct has been used in various attitude theories or models, including the theory of reasoned action (TRA) (Ajzen & Fishbein, 1977), TAM (Davis, 1989) and TPB (Ajzen, 1991). Existing literature argues that ATT influences BI in various sectors, including green buildings and microgeneration technologies, and music streaming (Wei *et al.*, 2025; Mkhize, 2021; Dörr *et al.*, 2013). Thus, it can be hypothesized that:

H7: User attitude (ATT) has a positive and significant influence on behavioural intention (BI).

2.4 BEHAVIOURAL INTENTION (BI)

Both the TAM and TPB have BI (defined in 2.1.2) as an outcome variable (Ajzen, 1991; Davis, 1986). In the current context, BI refers to the intention to adopt and use music streaming technologies. From TAM, BI is predicted by PEU, PU and ATT (Park & Zhang, 2022; Alfy *et al.*, 2017; Davis, 1989), while in TPB, BI is predicted by SNs, PBC and ATT (Park & Zhang, 2022; Alfy *et al.*, 2017; Ajzen, 1991). Ultimately, BI influences actual behaviour (Chen & Chang, 2012). Figure 1 shows the integrated TAM and TPB models to address the research gap for this study.

2.5 MEDIATOR VARIABLES: PU AND ATT

Mediation refers to the increase in the correlation between any two constructs (predictor and outcome) with the introduction of a third construct (the mediator) (Usakli, Kucukergin, Shi & Okumus, 2022). Existing literature found perceived usefulness to mediate the relationship between PEU and user ATT towards streaming technologies (Rahim, Irpan, Zakaria, Khir & Ahammad, 2024). Similarly, the relationship between perceived usefulness and intended behaviour (e.g. technology adoption) is enhanced by the introduction of a mediator variable – attitude towards the technology (Liesa-Orús, Latorre-Cosculluela, Sierra-Sánchez, *et al.*, 2023). For this study, there are two proposed mediators, with PU mediating the PEU-ATT relationship while ATT mediates PU-BI relationship (see Figure 1). Thus:

H8: Perceived usefulness (PU) mediates the relationship between perceived ease of use (PEU) and user attitude (ATT).

H9: User attitude (ATT) mediates the relationship between perceived usefulness (PU) and behavioural intention (BI).

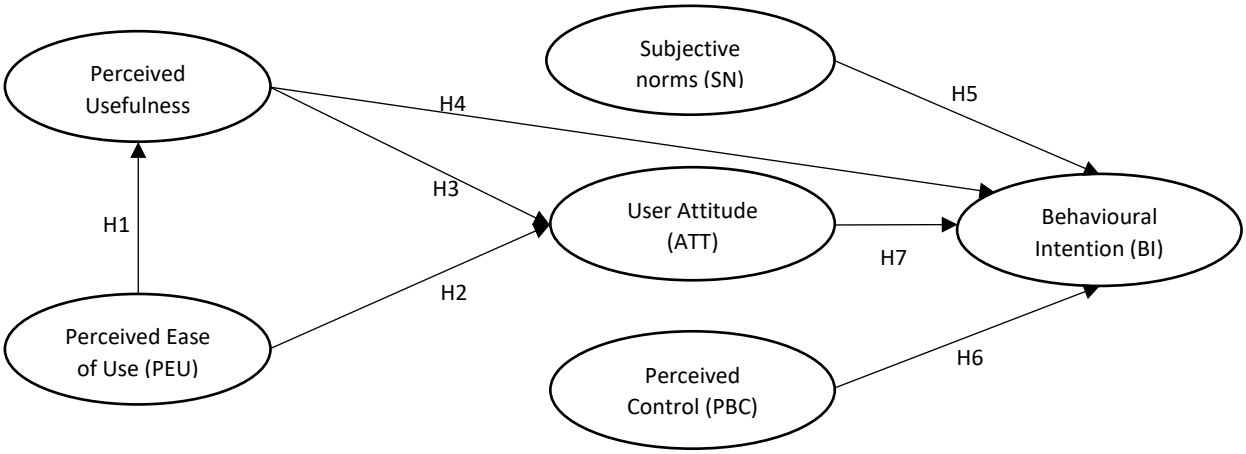


FIGURE 1: PROPOSED RESEARCH MODEL

Although extant literature has integrated the TAM and TPB in Portugal, Germany, Namibia, Spain and China, the focus was on functional aspects within banking or building technologies. The digital music streaming sector provides a voluntary and hedonic perceptive, in which social norms and control beliefs may have different effect on intended behaviour (McEachan et al., 2011; Venkatesh et al., 2003). Thus, the different contexts are relevant for testing the application of these theories.

3. RESEARCH METHODS

3.1 MEASUREMENT

The constructs for the study were adapted from existing literature, using a multi-item scale for measurement. The 7-point Likert scale ranged from 1 (strongly disagree) to 7 (strongly agree). Before its final administering, the research instrument (survey questionnaire) was assessed and approved by the relevant ethics committee (ethics number: 2023SCiiS002).

Piloting was done among thirty (30) qualifying respondents who provided the initial responses for analysis, from which the final version of the instrument was derived before its final administering.

3.2 DATA GATHERING

The respondents for the study were sourced through non-probability convenience sampling technique, gathering 350 valid responses, aged 18 to 65, living in the Johannesburg Metropolitan Municipality. Data was collected in June 2023 using a self-administered personal survey, using physical questionnaire. The ethics code of conduct, as per the clearance conditions, was observed throughout the process. Table 3 presents descriptive statistics of the sampled respondents while Table 4 presents music streaming platform popularity.

TABLE 3: DESCRIPTIVE STATISTICS OF RESPONDENTS

Demographic Type	Descriptor	Percentage
Gender	Male	175 (49%)
	Female	175 (49%)
	Preferred not to say	7 (2%)
Age	18-23	235 (66%)
	24-29	78 (22%)
	30-35	23 (6%)
	36-41	12 (3%)
	42-47	6 (2%)
	48+	1 (1%)
Occupation	Student	238 (66%)
	Unemployed	43 (12%)
	Employed Full-time	36 (10%)
	Employed part-time	19 (5%)
	Self-employed	22 (6%)

Demographic Type	Descriptor	Percentage
Level of education	No formal education	5 (1%)
	Some education, but did not complete matric	13 (4%)
	Completed Matric	184 (51%)
	University/College undergraduate degree	123 (34%)
	Postgraduate degree	33 (9%)
Preferred residence	On-campus	147 (27%)
	Off-campus	199 (37%)
	Off-campus not accredited	196 (36%)
Average Monthly Income	Below R1 500 pm	150 (42%)
	R1 501 – R3 500 pm	125 (35%)
	R3 501 – R5 000 pm	22 (6%)
	R5 001 – 7 500 pm	23 (6%)
	R7 501 – R10 000 pm	8 (2%)
	R10 001 – R15 000 pm	10 (3%)
	R15 001 – R25 000 pm	11 (3%)
	Over R25 000 pm	9 (3%)

TABLE 4: TABLE 4: ONLINE PLATFORM POPULARITY

Platform		Frequency	%
Sportify		207	57,8%
YouTube Music		90	25,1%
Apple Music		13	3,6%
Google Play Music		6	1,7%
iTunes		1	0,3%
Not applicable		36	10,1%
Missing	System	4	1,1%

3.3 DATA ANALYSIS AND RESULTS

Data analysis in an important step in determining the relationships between constructs (Maduku, 2021). The current study took correlation-based structural equation modelling (CB-SEM) for data analysis, relying on its strength in hypotheses testing, theory validation, analysing complex models, identifying causal relationships and the overall predictor effect between constructs (Qiu, Zhang, Xu, Fu, Mi & Li, 2025). Table 8 and Figure 2 show measurement and structural model results of the data analysis conducted using the IBM SPSS version 29 and AMOS version 29.

3.3.1 Measurement model analysis

The measurement items for the study were validated using the measurement model which, in turn, was validated through the discriminant and convergent validity testing (Nitzl, 2020). To confirm validity of the model, factor loadings (>/= 0,708), average variance extracted (AVE) (>/= 0.5) and composite reliability (CR) (>/= 0.5) were used with relevant thresholds as indicated.

For discriminant validity, defined as the measure of distinctions between constructs in a model, the Fornell and Larcker (1981) criteria was used, with all the values exceeding the required threshold of 0.85 – 0.90 for any correlation between constructs (Henseler, Ringle & Sarstedt, 2015). The results of the discriminant validity are presented in Table 6, which confirm validity between constructs.

TABLE 5: CONSTRUCT RELIABILITY AND CONVERGENT VALIDITY

	Factor Loadings	Cronbach's alpha	Composite reliability	AVE
Perceived Ease of Use (PEU)		0.975	0.975	0.868
PEU1	0.913			
PEU2	0.934			
PEU3	0.955			
PEU4	0.939			
PEU5	0.930			
PEU6	0.919			
Perceived Usefulness (PU)		0.976	0.976	0.873
PU1	0.914			
PU2	0.923			
PU3	0.945			
PU4	0.940			
PU5	0.957			
PU6	0.926			
Attitude (ATT)		0.976	0.976	0.873
ATT 1	0.930			
ATT 2	0.946			
ATT 3	0.925			
ATT 4	0.956			
ATT 5	0.956			
ATT 6	0.891			

	Factor Loadings	Cronbach's alpha	Composite reliability	AVE
Subjective norms (SNs)		0.944	0.943	0.736
SN1	0.753			
SN2	0.698			
SN3	0.809			
SN4	0.936			
SN5	0.963			
SN6	0.952			
Perceived Behavioural Control (PBC)		0.958	0.959	0.795
PBC1	0.927			
PBC2	0.922			
PBC3	0.934			
PBC4	0.887			
PBC5	0.752			
PBC6	0.914			
Behavioural Intention (BI)		0.959	0.893	0.737
BI1	0.924			
BI2	0.939			
BI3	0.948			
BI4	0.885			

TABLE 6: DISCRIMINANT VALIDITY USING THE FORNELL AND LARCKER (1981) CRITERIA

	ATT	PEU	PU	PBC	BI	SN
ATT	**0,934**					
PEU	0,704	**0,932**				
PU	0,706	0,769	**0,934**			
PBC	0,783	0,717	0,730	**0,892**		
BI	0,806	0,696	0,715	0,821	**0,924**	
SN	0,513	0,308	0,365	0,462	0,492	**0,858**

3.3.2 Testing for goodness of fit

As a measure of the overall fit of the study's proposed model, the goodness-of-fit test has several thresholds guiding the interpretation of the test results. These are: Chi-squared/degrees of freedom (CMIN/DF) of below 3 (CMIN/DF < 3); TLI above 0.9 (TLI > 0.9); RMSEA below 0.06 (RMSEA < 0.06), and CFI above 0.95 (CFI > 0.05) (Hair *et al.*, 2020; Hair, Howard & Nitzl, 2020). The GOF results for the current study are presented in Table 7, showing consistency with recommended thresholds in literature (Hair et al., 2020).

TABLE 7: MODEL FITNESS TEST STATISTICS

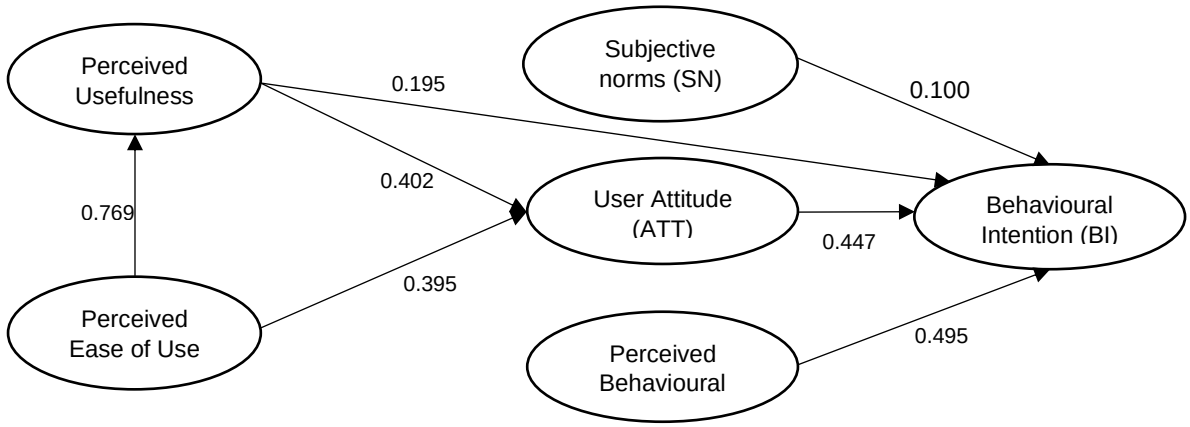
Fit Indicator	Threshold adapted from Hair *et al.* (2020: 579-580)	Measurement model	Decision
CMIN/DF (Chi-square/degree of freedom)	Below 3 (good), From 3 to 5 (acceptable), Over 5 (bad)	2.958	Good
RMSEA (Root Mean Square Error of Approximation)	Below 0.05 (good), From 0.06 to 0.1 (acceptable), Over 0.1 (bad)	0.074	Acceptable
CFI (Comparative Fit Index)	Below 0.90 (bad), Over 0.90 (good)	0.944	Good
TLI (Tucker Lewis Index)	Below 0.80 (bad), From 0.80 to 0.90 (acceptable), Over 0.90 (good)	0.939	Good

3.3.3 Hypotheses testing and Common Method Bias (CMB)

The Harman's one-factor was used to test for any potential common method bias (Maduku, 2024). This ensures that no single factor accounted for the majority (more than 50%) of the correlation between predictors and the outcome variables (Babin, Griffin & Hair Jr, 2016). The results of the analysis showed that all values were below the recommended 40% eigenvalue threshold, suggesting no threat of common method variance in the current study (Maduku, 2024).

Before conducting hypotheses assessment, the study tested for collinearity between exogenous variables using the variance inflation factors (VIF) (Maduku, 2024; Kock, 2015). All VIF values were below the acceptable threshold of 3, thereby suggesting unlikelihood of collinearity.

The results of the structural model and the hypotheses are presented in Figure 2 and Table 8.



*p < 0.05; **p < 0.01; ***p < 0.001, ns Not significant (p > 0.05)

FIGURE 2: STRUCTURAL MODEL TESTING RESULTS.

As presented in Table 8 and Figure 2, the beta values indicate the size and direction of the relationship between constructs, while the p-values indicate the significance of each relationship in the model (Maduku, 2024). The results show that all hypotheses were confirmed, at different levels of significance:

TABLE 8: HYPOTHESES TESTING RESULTS

Hypotheses	Relationship	Beta values	t-values	p-value	Decision
H1	PEU → PU	0.769***	17.998	***	Confirmed
H2	PEU → ATT	0.395***	6.498	***	Confirmed
H3	PU → ATT	0.402***	6.635	***	Confirmed
H4	PU → BI	0.195***	3.701	***	Confirmed
H5	SN → BI	0.100***	2.720	***	Confirmed
H6	PBC → BI	0.495***	12.464	***	Confirmed
H7	ATT → BI	0.447***	8.163	***	Confirmed

*p < 0.05; **p < 0.01; ***p < 0.001, ns Not significant (p>0.05)

4. DISCUSSION AND IMPLICATIONS

4.1 PEU, PU, ATT, BI

Based on the findings presented in Table 8, the proposed hypotheses involving TAM dimensions were confirmed at different levels. This suggests that music fans who believe that the online music streaming platforms or technologies are easy to use will have strong beliefs that the technology will be useful in their lives, thus forming a positive attitude towards adopting and using the technology. This corroborates findings from existing literature (Chauhan et al., 2025; Bothma & Mostert, 2023; Bashir *et al.*, 2022; Munoz-Leiva *et al.*, 2017). Similarly, PU positively and significantly influences user attitude, confirming H3 in the current study. This means that consumers who believe that streaming technology is useful to them are more likely to form positive attitudes about the technology. Ultimately, consumers with a positive attitude about technology are more likely to adopt and use it, while the opposite is also true (Bothma & Mostert, 2023).

4.2 MEDIATION EFFECT: PU AND ATT

Based on the mediation results in Table 9, both mediation effects were partially confirmed. For the PEU-PU-ATT relationship, the results for both direct and indirect effect are positive and significant, suggesting that while PEU independently (direct effect) enhances ATT, the addition of a moderator (PU) (indirect effect) enhances the total effect when users also perceive the streaming platforms as useful. Following the same logic, the addition of ATT strengthens the effect of PU on BI, suggesting that users with positive attitude towards streaming platforms (indirect effect), besides perceived usefulness (direct effect) of the platforms, are more likely to intend to adopt them.

TABLE 9: RESULTS OF MEDIATION ANALYSIS

	Direct effect	Indirect effect	Total effect	Decision
PEU>>PU>>ATT	0.393	0.311	0.704	Significant effect
PU>>ATT>>BI	0.289	0.426	0.714	Significant effect

4.3 SN, PBC AND BI

Similarly, H5 and H6 were confirmed at different levels, in line with the TPB. This suggests that, for H5, the opinions of close relationships (e.g. friends, family, colleagues) affect user behaviour (despite a weaker value of Beta = 0.100), corroborating findings in extant literature (Wei et al., 2025; Mkhize, 2021; Dörr et al., 2013). As for H6, the findings suggest that an individual who believes in their level of knowledge about the music streaming technologies is more likely to intend to adopt and use such technology (Ajzen, 1991). This corroborates findings from existing literature (Wei et al., 2025; Mkhize, 2021). The findings of the two hypotheses suggest that both individual and social factors have a positive impact in shaping consumer behaviour, especially in a digital technology environment like music streaming.

4.4 IMPLICATIONS OF THE STUDY

4.4.1 Theoretical implications

Insights from the data analysis and interpretation resulted in interesting implications for theory and literature. Firstly, the study's results suggest integration of the TAM (Davis, 1986) and TPB (Ajzen, 1991) in relation to the adoption of music streaming context, as previous studies used TRI and TPB (Nhlabathi, 2024). Furthermore, the present study highlights that previous studies paid more attention to technology adoption in sectors like banking (Bothma & Mostert, 2023; Munoz-Leiva et al., 2017) and social media (Bashir et al., 2022) and not in online music adoption. Secondly and mainly, the South African context provided a different dimension to the study as previous studies focused on countries like Namibia, Pakistan and Spain (Bothma & Mostert, 2023; Bashir, Zhongfu *et al.*, 2022; Munoz-Leiva *et al.*, 2017).

4.4.2 Managerial implications

Practically, the findings suggest that practitioners (e.g., content distributor, technology providers, record labels, etc.) in the music sector should pay attention to the strength of individual constructs on user behaviour.

Firstly, the strength of perceived ease of use suggests the need to prioritise simple interfaces, simplified onboarding processes (for new users), easy navigation, and user education about the on the streaming platforms. Secondly, the strength of perceived usefulness suggests the need to emphasise the benefits of using the streaming platforms, such as having customised playlists, customised content recommendations, offline consumption access (content downloads). Thirdly, perceived behavioural control highlights the need for strategies that accommodate the affordability of consumers, data-efficiencies (e.g., automatic switch from mobile to Wi-Fi data when safe connection is detected), bundled data packages for streaming (in partnership with network service providers).

The weaker effect of social norms on behavioural intention suggests that this driver should not be the focus in driving adoption and use of digital platforms. Instead, it should be used to complete the drivers with stronger effect like user perceptions (i.e., PEU, PU, PBC) and user attitude.

4.5 LIMITATIONS AND RECOMMENDATIONS FOR FURTHER STUDIES

Like most studies, the present study had several limitations, including those of a theoretical and methodological nature.

4.5.1 Theoretical limitations

The study was limited to the TAM and TPB, while there are other more detailed technology adoption theories like the technology readiness index (TRI), unified theory of acceptance and use of technology (UTAUT), diffusion of innovation (DOI), theory of reasoned action (TRA) (Moura *et al.*, 2020; Taherdoost, 2018; Parasuraman, 2000). By drawing on different theories, other dimensions of technology adoption would be possible, including innovativeness, discomfort, performance expectancy, effort expectancy, and facilitating conditions. All of these may be tested in future follow-up studies.

4.5.2 Sampling and data gathering limitations

There were also limitations on the sampling for the study. These include the use of non-probability convenience sampling, where 66% of the sample are students (aged between 18-23 years). Furthermore, data were collected using personal surveys, while there are other methods such as experiments and online surveys, which may produce different insights from the respondents. Data generation took place in a single location (Johannesburg, South Africa), producing results that could be different from those of other provinces, non-metropolitan or non-student-dominated areas like Pongola, Mafikeng, Ermelo and Nqutu.

4.5.3 Data analysis limitations and recommendations

Data analysis for this study was limited to correlation-based structural equation modelling (CB-SEM). Future studies can move a step further by conducting group-based analyses to test any possible differences across demographic groups. For instance, an independent sample t-test (gender) and ANOVA (age groups, income groups) (Yu, Guindani, Grieco, Chen, Holmes, & Xu, 2022).

5. CONCLUSION

This study used an integrated TAM-TPB framework to investigate factors influencing technology adopting and usage in the context of music streaming platforms. Without extending the theory, the study applied well established theories in the context of an emerging market, specifically in South Africa. All hypothesized relationships were confirmed at different levels, in line with TPB and TAM. It emerged that user perceptions of technology are important in shaping their attitudes and ultimately their intention to adopt and use the technology. These perceptions are on the usefulness and ease of using the technology (TAM) and the user beliefs in their knowledge and ability to control the intended behaviour (e.g. level of knowledge and affordability). It also confirmed that the perceptions around the ease of using the technology are enhanced when users believe that the technology will benefit them.

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